REMARKS

Claim 37 and 38 have been cancelled upon entry of the instant amendment; claims 2, 18, and 21 were previously cancelled. Accordingly, claims 1, 3-17, 19, 20, and 22-36 are pending in the application. Applicants specifically preserve the right to pursue cancelled subject matter in one or more continuation or divisional applications.

The amendment to the specification adds no new matter. The polypeptide sequence set forth in SEQ ID NO:1 is the rdgC protein sequence disclosed in Steele, *et al., Cell* 69:669-676, 1992, (*see, e.g.,* page 671), which is incorporated by reference at page 8 in the specification. Accordingly, the importation of the specific sequence adds no new matter and is supported by the specification as filed.

This amendment is accompanied by a floppy disk containing the above named sequence, SEQ ID NO:1, in computer readable form, and a paper copy of the sequence information which has been printed from the floppy disk.

The information contained in the computer readable disk was prepared through the use of the software program "PatentIn" and is identical to that of the paper copy.

Claims 1, 15, 24, and 33 have been amended to recite a Drosophila RDGC phosphatase comprising the sequence set forth in SEQ ID NO:1. This amendment adds no new matter and is supported by the specification as noted above.

The rejections will be addressed in the order presented in the Office Action.

Rejection under 35 U.S.C. § 112, first paragraph

Claims 1, 3-17, 19, 20, and 22-38 were rejected as allegedly lacking adequate written descriptive support in the specification. The Examiner argues that the recitation of Drosophila RDGC phosphatase in the claims is insufficient to overcome the written description rejection because "Drosophila RDGC phosphatase" encompasses variants as well as the sequence disclosed in Steele *et al., supra*. Further, she argues that the term does not impart a meaningful limitation to the claims as there is not art-recognized definition for what constitutes a *Drosophila* RDGC phosphatase. In order to expedite prosecution, the claims have been amended to recite a

Drosophila RDGC phosphatase comprising the sequence set forth in SEQ ID NO:1. Applicants therefore respectfully request withdrawal of the rejection.

Rejection under 35 U.S.C. § 103

Claims 1, 3-17, 19, 20, and 22-38 stand rejected as allegedly obvious over Byk *et al.*, (*Proc. Natl. Acad. Sci. USA* 90:1907-1911, 1993) in view of Zuker, *et al.*, (*Proc. Natl. Acad. Sci. USA* 93:571-576, 1996) and Zuker (GenBank Accession No. M17718, reference "AE"). Applicants respectfully traverse for reasons of record. The Examiner's additional arguments commenting on the arguments presented by Applicants in the previous response are addressed below.

The Examiner contends that knowledge of the direct *in vivo* biological role of RDGC phosphatases was not required in order to arrive at the claimed invention. Specifically, the Examiner points to passages in Byk, *et al.*, on pages 1908 and 1910, and Zuker, *et al.*, in Figure 1, that she maintains would lead one of skill to the claimed invention. First, with regard to Figure 1 on page 572 of Zuker *et al,* although the gene *RdgC* is indeed depicted in the highly schematized (page 571), view of *Drosophila* phototransduction, Zuker *et al.*, explicitly teach in the legend to Figure 1 that a role in dephosphorylation of rhodopsin is a presumptive role. Further, the experiments performed by Byk *et al.*, are performed using membrane preparations. The passage on page 1908 cited by the Examiner refers to a section where Byk *et al.* describe that in Figure 2, phosphorylated rhodopsin is a major substrate for rdgC protein phosphatase. However, the reference is silent as to whether rdgC protein is required for efficient dephosphorylation *in vivo*. With regard to the passage on page 1910, which indicates that previous studies placed the site of action of the *rdgC* gene product before phospholipase C, it too fails to identify a specific *in vivo* biological function of the gene product.

Last, Applicants note that a paper published in *Science* (Vinos *et al.*, 277:687-690, 1997), which was previously referred to by the Examiner (paper number 6), describes the *in vivo* role of rdgC phosphatase. This paper was published after the priority date of the application. The publication of the *in vivo* biological role of rdgC phosphatase in a widely known journal provides evidence that those of skill in the art at the time of the invention did not consider the *in*

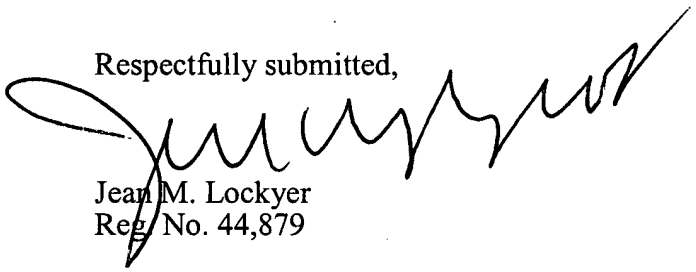
vitro studies and presumptive role of rdgC phosphatase to lead to Applicants' invention. The Examiner contends that it is not necessary to provide an *in vivo* context in order to arrive at the claimed invention. However, in the absence of such a context, why would of skill arrive at the screening methods claimed in the instant application? Thus, in view of the deficiencies in the cited art, the rejection fails to establish a proper case of *prima facie* obviousness. Applicants therefore respectfully request withdrawal of the invention.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 415-576-0200.

Respectfully submitted,



Jean M. Lockyer
Reg. No. 44,879

TOWNSEND and TOWNSEND and CREW LLP
Two Embarcadero Center, Eighth Floor
San Francisco, California 94111-3834
Tel: 415-576-0200
Fax: 415-576-0300
JML:jml
60283678 v1